## Abstract

The phase of a data signal relative to a [0055] reference clock signal is approximated relatively accurately using only relatively coarse increments of phase shift between trial version of a sampling clock 5 signal (derived from the reference clock signal). Information about which amounts of progressively greater phase shift in the sampling clock signal cause loss of alignment between a training pattern and training data in the data signal can be used for such 10 purposes as identifying the amount of phase of shift of the reference clock signal that will be best for use in sampling the data signal during normal (post-training) operation.